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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/621,450	07/18/2003	Tsutomu Ohishi	240490US2	1117
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OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314				
			EXAMINER	
			TRUONG, LECHI	
			ART UNIT	PAPER NUMBER
			2194	
			NOTIFICATION DATE	DELIVERY MODE
			09/24/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/621,450

Applicant(s)

OHISHI ET AL.

Examiner

LeChi Truong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) 5,6,16,17,27 and 28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,7-15,18-26 and 29-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date See Continuation Sheet.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :10/31/06,10/21/05,10/25/04,1/2/04,3/7/05.

DETAILED ACTION

1. Applicant's election with traverse of the invention of group I (claims 1-4, 7-15, 18-22, 23-26 and 29-34) in the reply filed on 07/26/2007 is acknowledged. The traversal is on the ground(s) of structure document. This is not found persuasive because combination of claims 4-6, 16-17, 27-28 is different from the invention of claims 1, 12, 23, 34 which describe a wrapping for converting a function called by application, executing the function by using the converted function.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 1-11, 23-33 are rejected under 35 U.S.C. 101 because they are directed to non-statutory subject matter.

3. Claims 1-11, 23-33 are non-statutory because they are software per se embodied in a manner so as to be executable.

Claims 1, 23 define "An image forming apparatus" in the preamble and the body of the claims recite "a wrapping part", "function called". A wrapping part, function calls appear to

be a software module. Therefore, claims 1, 23 are non-statutory because they recite apparatus claims that comprise software embodiments.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 12, 23, 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al (US 7,047,535 B2) in view of Pace et al (US. Patent 7,181,731 B2).

As to claim 1, Lee teaches the invention substantially as claimed including: an application (client application, col 2, ln 8-11), a function call (application programming interface, col 2, ln 7-10), an control service (workflow engine, col 2, ln 10-16/server, col 2, ln 60-65), an application for performing processes on image formation and an control service for performing system side processes according to a function call from the application (col 2, ln 10-16), a wrapping part (a Java native Interface wrapper, col 2, ln 10-15), the convert function(native code, col 2, ln 10-16), a wrapping part for converting a function called by the application, and performing a function call to the control service by using the converted function(col 2, ln 10-16).

Lee does not explicitly teach image. However, Pace teaches image (to move the SC asset from the HTTP server to the HTTP client. These boundaries may define an asset as a SC asset. According to one embodiment of the present invention, an SC asset may include, for example, an HTML file for a Web page, an image (e.g., a JPEG image), a movie, an animation, and/or an audio file (e.g., an MP3 file), col 37, ln 3-9).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the teaching of Lee with Pace to incorporate the feature of image because this allows an different applications can be transformed and/or executed on various tires of the network.

As to claims 12, 23, 34, they are apparatus claim 1; therefore, they are rejected for the same reason as claim 1 above.

5. **Claims 2, 3, 13, 14, 24, 25** are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al (US 7,047,535 B2) in view of Pace et al (US. Patent 7,181,731 B2), as applied to claim 1 above, and further in view of Lam et al (US. Patent 5,926,636).

As to claim 2, Lee and Pace do not teach there is a version difference between the function used by the application for the control service and a corresponding function in the control service. However, Lam teaches there is a version difference between the function used by the application for the control service and a corresponding function in the control service (If comparison of the version of the application programming interface in the message buffer with a

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version of an application programming interface on the second computer ... if the version are incompatible, col 5, ln 26-33).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the teaching of Lee and Pace with Lam to incorporate the feature of a version difference between the function used by the application for the control service and a corresponding function in the control service because this supports different versions of application programming interfaces by remote procedure call modules on client and servers computers.

As to claim 3, Lam teaches wherein the wrapping part determines whether there is the version difference by referring to information indicating that a version of the corresponding function in the control service has been changed (col 4, ln 22-27/ col 6, ln 12-20/ col 7, ln 25-31/ col 11, ln 13-20).

As to claims 13, 14, 24, 25, they are apparatus claims 2, 3; therefore, they are rejected for the same reasons as claims 2, 3 above.

6. **Claims 4, 15, 26** are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al (US 7,047,535 B2) in view of Pace et al (US. Patent 7,181,731 B2), as applied to claim 1 above, and further in view of Nakamura et al (US. Patent 5,987,529).

As to claim 4, Lee and Pace do not teach converts the function by adding at least a dummy function or at least an argument if the number of functions or the number of arguments is different between the function used in the application for the control service and the

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corresponding function in the control service. However, Nakamura teaches converts the function by adding at least a dummy function or at least an argument if the number of functions or the number of arguments is different between the function used in the application for the control service and the corresponding function in the control service (it is determined whether the code which is the argument of the selector mismatch handler selectorMismatchHandler is equal to newcode (step 260). If the code and newcode are different the code which is the argument of the vmicall instruction is replaced with newcode (step 270). In the previous example, the code was 1. If the newcode assigned in step 240 is 3, vmicall (26,1) is rewritten to vmicall (26,3), col 9, and ln 12-20).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the teaching of Lee and Pace with Nakamura to incorporate the feature of adding at least a dummy function or at least an argument if the number of functions or the number of arguments is different between the function because this allows the collective recovery processing of inconsistencies can be avoided, the method invoking can be speeded up and memory efficiency can be increased.

As to **claims 15, 26**, they are apparatus claim 4; therefore, it is rejected for the same reason as claim 4 above.

7. **Claims 7, 18, 29** are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al (US 7,047,535 B2) in view of Pace et al (US. Patent 7,181,731 B2), as applied to claim 1 above, and further in view of Vandewalle et al (US 2004/015402 A1).

As to claim 7, Lee and Pace do not teaches a virtual application service that operates as a client process for the control service and operates as a server process for the application, wherein the wrapping part is included in the virtual application service (a related object that such high level protocols be adapted for execution in a distributed system comprising at least one smart card with a Java card virtual machine (server)[virtual application service] and at least one card acceptance device or terminal (client) running under a Java virtual machine or the like, (para[0018], In 1-5/ the proxy sends this call to the Java card through the API, a communications module to the Java card run-time environment (JCRE)[virtual application service]. The JCRE unmarshals the parameters and invokes the methods of the applet with a local call. After execution of the methods, the results are marshaled and the JCFE prepares a process level reply message, para [0021], In 10-18/ the proxy sends this DMI message to the Java card 9 through the API 507, communication module 509 to the JCRE 513. The JCRE unmarshals the parameters and invokes the methods of the applet 515 with a local call After execution of the methods, the results are marshaled and the JCRE prepares a DMI reply message, para[0053], In 9-16).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the teaching of Lee and Pace with Vandewalle to incorporate the feature of virtual application service because this allows the interface to provide an implementation independent description of an object of transport method invocations between client application and remote object.

As to claims 18, 29 they are apparatus claim 7; therefore, they are rejected for the same reason as claim 7 above.

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8. Claims **8, 9, 10, 11, 19-22, 30-33** are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al (US 7,047,535 B2) in view of Pace et al (US. Patent 7,181,731 B2), as applied to claim 1 above, in view of Vandewalle et al (US 2004/015402 A1) and further in view of Hamilton et al (US 2003/0177283 A1).

As to **claim 8**, Lee, Pace and Vandewalle do not teach a version check part for determining whether a version of a set of functions used by the application is within a predetermined range that the application service can support. However, Hamilton teaches a version check part for determining whether a version of a set of functions used by the application is within a predetermined range that the application service can support (A server examines the requested version number and compares it against the versions it supports. If the requested version is the range of version supported by the server supported by the server, the acceptance of the version is indicated in a subsequent SessOpenConf message, para [0121], ln 4-10).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the teaching of Lee, Pace and Vandewalle with Hamilton to incorporate the feature of a version check part for determining whether a version of a set of functions used by the application is within a predetermined range that the application service can support because this allows an application to monitor a status of other applications connected to the control process of the MSSP.

As to **claim 9**, Hamilton teaches the version check part obtains the version of the set of the functions from the application, and determines whether the version is within the

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predetermined range by referring to information including the predetermined range (para [0121], ln 4-10/ para [1029], ln 1-10).

As to claim 10, Hamilton teaches a version check part for determining, function by function, whether a version of a function used by the application for the virtual application service is within a predetermined range that the virtual application service can support (para [0121], ln 4-10).

As to claim 11, Hamilton teaches the version check part obtains the version of the function from the application, and determines whether the version is within the predetermined range by referring to information including the predetermined range (para [0121], ln 4-10).

As to claims 19, 20, 21, 22, 30-33, they are apparatus claims 8, 9; therefore, they are rejected for the same reasons as claims 8, 9 above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LeChi Truong whose telephone number is (571) 272 3767. The examiner can normally be reached on 8 - 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomson, William can be reached on (571) 272 3718. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIP. Status information for unpublished

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LeChi Truong

September 14, 2007


WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER